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Titolo	CAD, 3D Modeling, Engineering Analysis, and Prototype Experimentation : Industrial and Research Applications // by Jeremy Zheng Li
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ISBN	9783319059211 3-319-05920-3
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (254 p.)
Disciplina	620.0042 620.00420285 721.0285 721/.0285
Soggetti	Engineering design Computer-aided engineering Computer simulation Engineering Design Computer-Aided Engineering (CAD, CAE) and Design Simulation and Modeling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Solar Energy System for Water Distillation -- Wind Power Turbine System -- Solar Panel Tracking System -- Energy-Saving Cooling System -- Automated and High Speed Manufacturing Systems -- Robotic System -- Magnetic Sealing System -- Automated and High Speed Packaging System -- Biomedical and Surgical Systems -- Conclusion.
Sommario/riassunto	This succinct book focuses on computer aided design (CAD), 3-D modeling, and engineering analysis and the ways they can be applied effectively in research and industrial sectors including aerospace, defense, automotive, and consumer products. These efficient tools, deployed for R&D in the laboratory and the field, perform efficiently three-dimensional modeling of finished products, render complex

geometrical product designs, facilitate structural analysis and optimal product design, produce graphic and engineering drawings, and generate production documentation. Written with an eye toward green energy installations and novel manufacturing facilities, this concise volume enables scientific researchers and engineering professionals to learn design techniques, control existing and complex issues, proficiently use CAD tools, visualize technical fundamentals, and gain analytic and technical skills. This book also:

- Equips practitioners and researchers to handle powerful tools for engineering design and analysis using many detailed illustrations.
- Emphasizes important engineering design principles in introducing readers to a range of techniques.
- Includes tutorials providing readers with appropriate scaffolding to accelerate their learning process.
- Adopts a product development, cost-consideration perspective through the book's many examples.

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